

NIEHS welcomes 2014 summer interns

By Eddy Ball

The National Institutes of Health (NIH) Summer Internship Program (SIP) at NIEHS welcomed participants June 12 with a breakfast seminar. The following week, the program held a panel session on scientific career paths, followed by seminars in applying to graduate and medical school.

The almost 40 high school, undergraduate, and graduate students will receive a stipend for their eight weeks of training in NIEHS and NTP laboratories and divisions. Each will be working on individual research projects, mentored by lead scientists and postdoctoral fellows. At the end of the training, they will highlight their research during a poster competition July 24.

The initial SIP seminars, which focus on training and career development, are followed by scientific seminars. This summer, seminars include the developmental origin of disease, and climate change and human health.

Getting off to the right start

The breakfast seminar was an opportunity for interns to meet fellow participants, as well as for program leaders to orient the students to scientific research at NIEHS, announce new opportunities, and reinforce core concepts of the training experience. Interns were encouraged to strive to answer the question, "How can I maximize my experience this summer?"

NIEHS Deputy Scientific Director and Training Director Bill Schrader, Ph.D., and SIP Coordinator Debbie Wilson made it clear to students that they are expected to take an active role in balancing work in their labs with the many seminars and learning opportunities available, such as the new Journal Club (see [story](#)) and a special tour of the adjacent U.S. Environmental Protection Agency.

"The science has to come first," Schrader told the students, "but try to budget the time you have to do both."

Negotiating changing career paths

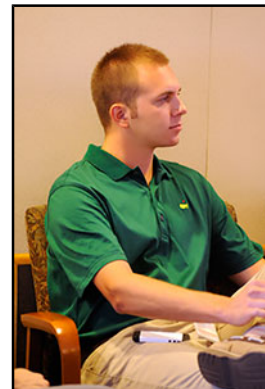
As Wilson told the students, the career panel has been the most popular seminar experience in the program. Each year, Wilson invites three NIEHS scientists to join University of Maryland professor and NIH training consultant [William Higgins, Ph.D.](#), (<http://biology.umd.edu/faculty/williamjhiggins>) to share their own experiences and sometimes winding career paths with the interns.

At this summer's panel discussion, NIEHS scientists included Health Scientist Administrator [Thaddeus Schug, Ph.D.](#), who oversees grants for the Division of Extramural Research and Training (DERT) Population Health Branch; Shepherd Schurman, M.D., acting medical director of the [Clinical Research Unit](#) and head of the [Environmental Polymorphisms Registry](#); (<http://dnaregistry.niehs.nih.gov/>) and DERT Program Analysis Branch Chief [Christie Drew, Ph.D.](#) None of them now have what might be called a traditional career in bench-based scientific research.

Even though Higgins heads a lab and trains postdocs, there is little about him or his career that he would describe as traditional. Among the other panelists, only Schurman said he followed a relatively straight course from his childhood ambition to his current career. Schug's initial career goal involved playing professional basketball, and Drew's career path took her from a doctorate in geography, through an internship with the World Health Organization, before she landed her job at NIEHS.

As Wilson had predicted, the mix of panelists worked well for the students, producing good advice about maximizing opportunities, following vocational passions, and adapting creatively to detours along the career path.

The interns seemed to agree. When asked about his experience so far in the summer program, and his opinion of the career panel session, Wake Forest University rising senior Trevor Hunt said, "It's awesome." Hunt also had unqualified praise for his Laboratory of Neurobiology mentors, lead researcher Jerrel Yakel, Ph.D., and award-winning research fellow Qing Cheng, Ph.D. (see [story](#)).



Like Hunt, above, the students were attentive during the breakfast seminar and had plenty of questions for the career panelists. (Photo courtesy of Steve McCaw)



The students, such as Chase Yuan, left, and Daniel Liaou, picked up useful advice and real-life examples from the panelists. "When you do get an opportunity, put extra effort into it," Schurman told them. "You will get noticed." (Photo courtesy of Steve McCaw)



Schug's winding career path took him from aspiring professional athlete at Potsdam College with a double major in physics and education, to a stint teaching science in high school and community college, through a Ph.D. in cancer biology at Cornell and a postdoc at NIEHS, to his current position administering grants in endocrine disruption and reproductive biology. (Photo courtesy of Steve McCaw)



Higgins said that being a professor has turned out to be the perfect career for him. "I needed to hang around smart people," he said. "I needed questions. I needed problems." (Photo courtesy of Steve McCaw)



Schrader presented students with a diagram to help explain the science conducted at NIEHS. He showed the progression, from clinical observation through basic research and clinical research, to public reports, connecting the work of scientists across the research spectrum at NIEHS. (Photo courtesy of Steve McCaw)



NIEHS postdoctoral fellow Joanne Damborsky, Ph.D., described the critical reading focus of the Journal Club that she and postdoctoral colleague Simone Otto, Ph.D., redesigned for summer 2014. The two will lead weekly sessions analyzing the structure, strengths, and weaknesses of scientific papers. (Photo courtesy of Steve McCaw)



Interns from the class of 2014 gathered on the front plaza at NIEHS. (Photo courtesy of Steve McCaw)

In a nutshell - how to become an NIH summer intern

Watch the "Applying Successfully" video and carefully read the instructions and frequently asked questions [online](http://www.training.nih.gov/programs/sip). (<http://www.training.nih.gov/programs/sip>)

- Approach the application process with passion for science and hard work. Of some 6,500 applications received each year, individual NIH lead researchers choose just 1,000 young people as interns.
- Begin early. Applications are accepted from mid-November 2014 to March 1, 2015, and a comprehensive application package must be submitted online.
- Narrow your search and contact the lead researchers you think will best fit your scientific interests. Individual scientists select their own summer interns and provide their funding. There is no centralized selection process.

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